

Digging Up the Soil Surveys: A Case Study for Inventorying Historic Government Documents

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About this Presentation

- The Soil Survey Inventory Project is a case study for researching the publication history of government documents
 - Info about the Soil Surveys
 - Why the inventory is needed
 - What we did to create the inventory
 - How we hope you (and others) might use it

About Soil Surveys

- Printed soil surveys were the main source of soils information in the United States from 1900 to 2005
- Produced by various bureaus within the U.S. Department of Agriculture
- Offer a unique view of local areas, often documenting the same areas over time

About the Project

- Various difficulties in providing access to the surveys
 - Lack of cataloging
 - Unique shelving decisions
 - Complex publication details
- Interest in preserving historic materials
- A comprehensive inventory of soil surveys will help librarians promote these rich resources to users

Notable Developments for the Surveys

- 1899 – Soil Survey established
- 1900 – First surveys published
- 1930s – Dust Bowl era; Soil Conservation Service (SCS) established
- 1950s – Standard use of aerial photography
- 1966 – Surveys published as monographs

Notable Developments for the Surveys

- 1970s – Urban lands included
- 1980s – Conservation practices required for USDA programs
- 1990s – SCS renamed Natural Resource Conservation Service (NRCS)
- 2005 – Web Soil Survey launched, print surveys phased out
- 2010s – App for mobile devices

Survey Uses

- Building site development
- Construction materials
- Engineering properties and classifications
- Recreational development
- Sanitary facilities
- Water management
- Woodland management and productivity
- Yields per acre of crops

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SOIL SURVEY SERIES 1952, NO. 9

TABLE 3.—Yields, use, and management of Semidesert loam range site

Range condition.....		Excellent	Good	Fair	Poor
Usable forage produced (lb. per acre when air dry):	Favorable years.	450 to 300	325 to 175	200 to 100	110 to 10
	Unfavorable years.	325 to 175	200 to 100	110 to 50	60 to 1
Indications of range readiness.....		Indian ricegrass is 6 inches tall; bottlebrush squirreltail is in the boot stage; Sandberg bluegrass is in full bloom.			
Best grazing seasons.....		Spring and fall.			
Proper or safe use of key management species.		Indian ricegrass..... 50% Bottlebrush squirreltail... 40% Common winterfat..... 50%	Indian ricegrass..... 50% Bottlebrush squirreltail... 40% Common winterfat..... 50% Western wheatgrass..... 40% Galletagrass..... 30% Shadscale saltbush..... 30%	Indian ricegrass..... 40% Bottlebrush squirreltail... 30% Common winterfat..... 40% Western wheatgrass..... 30% Galletagrass..... 20% Shadscale saltbush..... 20%	
Rotation-deferred grazing system to be used.		Use system of 3 pastures or more and defer each pasture at least every third year.		Use system of 4 pastures or more, and defer each pasture every other year.	

(*Soil Survey of Beryl-Enterprise Area, Utah, 1960*)

Publication Issues

- Published and cataloged as both series and monographs
- State-produced surveys
 - Illinois
 - South Dakota
 - Wisconsin
- Various agencies and potential SuDoc changes

SuDoc	Agency/Bureau	Date Range(s)	Notes
A 1.64/1, 2	Department of Agriculture: Agriculture Information Series	Pre-1927	Prior to A 47.5 some surveys may be found in this general USDA SuDoc
A 19.32	Bureau of Plant Industry	1901 – 1942	Likely use for Soil Surveys is 1938 – 1942
A 26.5	Bureau of Soils and Bureau of Chemistry and Soils	1901 – 1938	Most common SuDoc used prior to 1938
A 47.5	Bureau of Chemistry and Soils	1927 – 1938	Not commonly used
A 57.38	Natural Resources Conservation Service	1935 – 1942, 1945 – present	May be used back to 1899, but most common for 1953 forward.
A 77.514	Various departments, publications relating to horticulture	1942 – 1953	Not commonly used. Date range relates to publication date, not series date.

Access Issues

- Evolving formats (print, CD, online)
- Non-USDA Digitization
- USDA Digitized Maps are embedded in PDF bookmarks

Where Are The Maps?

NRCS employees click [here](#).

1.—How do I view current, official soil maps?

2.—How do I view archived soil maps?

2.1—What software do I need to view the archived soil survey maps?

2.2—The bookmarks aren't working. Now what?

1.—How do I view current, official soil maps?

Current, official maps are generated by the [Web Soil Survey](#). Detailed directions for using the Web Soil Survey are available at "[Getting Started With Web Soil Survey](#)."

2.—How do I view archived soil maps?

Two options are available. The simplest is to use the Firefox browser. Click [here](#) for details if you use a different browser.

Archived versions of previously published soil surveys are available in portable document format (PDF) at <https://www.nrcs.usda.gov/wps/portal/nrcs/soilsurvey/soils/survey/state/>. The maps are linked to the soil survey manuscripts. The archived soil maps are generally opened in three steps: (1) open the soil survey manuscript, (2) open the index to map sheets, and (3) click on the index to map sheets.

(Where are the Maps?, Natural Resources Conservation Service)

Library Management

- Listserv responses about how librarians store and manage their survey publications
- Only 11 respondents had a finding aid/list
- Many interested in specific state or region and preserving historic materials

Storage Options	Cataloged	Partially cataloged	Total
Government Documents Collection	20	15	35
LC or Dewey Collection	9	4	13
Off-site or in high-density storage area	9	5	14
Archival copy in Special Collections	3	5	8
Maps Collection	8		8
Agriculture Collection	1		1
Earth Sciences Collection	1		1

Process for creating the inventory

- Begin with existing resources:
 - List of digitized surveys by state (NRCS)
 - Older lists of soil survey publications (1939 & 1993/1994)
 - Finding aid from regional depository (USU)
- Compare to published bibliographies and indexes
- Compare to physical shelves
- Research in Worldcat and Catalog of Government Publications

Soil Survey Inventory

State	Location	Year Published	Series information	Additional information	SuDoc
South Dakota	Davison County	1974			A 57.38:D 29/2
South Dakota	Day County	1952		Only issued as Bulletin #421, South Dakota Experiment Station	
South Dakota	Day County	1997			A 57.38/41:D 33
South Dakota	Deuel County	1997			A 57.38/41:D 48
South Dakota	Dewey County	1979			A 57.38:D 51/2
South Dakota	Douglas County	1928	1923 #18		A 26.5:1923/18
South Dakota	Douglas County	1981			A 57.38:D 74/6
South Dakota	Edmunds County	1977			A 57.38:ED 5
South Dakota	Fall River County	1982			A 57.38:F 19/3
South Dakota	Faulk County	1984			A 57.38:F 27/2
South Dakota	Grant County	1928	1922 p.1649-1679 : plus map #44		A 26.5:1922
South Dakota	Grant County	1979			A 57.38:G 76/3
South Dakota	Gregory County	1984			A 57.38:G 86/2
South Dakota	Haakon County	1998			A 57.38/41:H 11
South Dakota	Hamlin County	2003			A 57.38/41:H 18
South Dakota	Hand County	1963	1956 #21	Also issued as Bulletin #511, South Dakota Experiment Station	A 57.38:1956/21
South Dakota	Hanson and Hutchinson Counties	1978			A 57.38:H 19/4
South Dakota	Harding County	1988			A 57.38:H 21/6
South Dakota	Hughes County	1975			A 57.38:H 87/2
South Dakota	Hyde County	1930	1925 #18		A 26.5:1925/18
South Dakota	Hyde County	1998			A 57.38/41:H 99
South Dakota	Jackson County, northern part	1987			A 57.38:J 13/9/NORTH
South Dakota	Jerauld County	1951		Only issued as Bulletin #411, South Dakota Experiment Station	
South Dakota	Jerauld County	1994			A 57.38/41:J 47

Applications for the Inventory

- Collection Gaps (Needs List!)
- Weeding
 - Digitized items ideal for informal substitution
- Preservation Stewards
- Outreach and Promotion

Demonstration Projects

- LibGuide

- <https://libguides.usu.edu/soilsurveys>

- Timeline

- <https://bit.ly/3hXpieN>

- Interactive Map

- https://www.google.com/maps/d/viewer?mid=1cwYK3ONw-Tw6x96Q0AryaNXNhC_WJFDU&usp=sharing

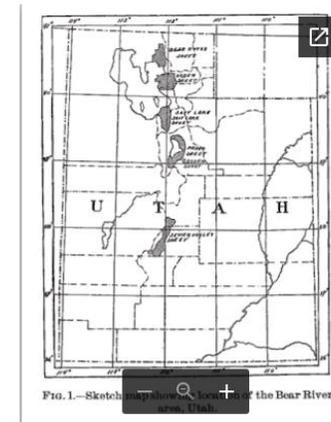


Fig. 1.—Sketch map showing location of the Bear River area, Utah.

USDA, Natural Resources Conservation Service

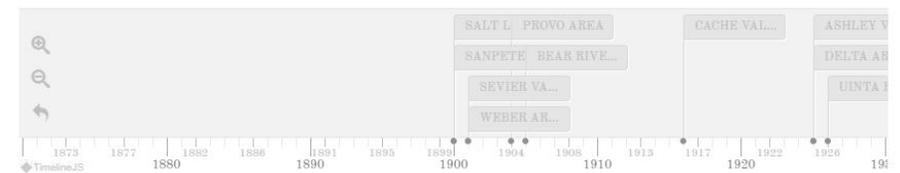
From Bear River Area Soil Survey (1905).

UTAH SOIL SURVEYS

This timeline lists Utah Soil Survey publications produced by the US Department of Agriculture from 1900 to 2014. Soil surveys provide useful data for a wide variety of researchers. Explore the evolution of these documents digitally or in USU Libraries' Government Information Collection.



SALT LAKE VALLEY



Questions and/or Discussion

Want more info? Email Jen (jen.kirk@usu.edu) or Helen (hfs1@psu.edu)

References

Bracke, M. S. (1997). The dirt under your feet: a brief history and future of soil surveys. *Bulletin Special Libraries Association. Geography and Map Division*, (186), 36–40.

Gardner, D. R. (1957). *The National Cooperative Soil Survey of the United States*. Doctoral Thesis, Graduate School of Public Administration, Harvard University. Republished in 1998 as Historical Notes No. 7, United States Department of Agriculture, National Resources Conservation Service. Retrieved from:

<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=nrcseprd1402412>

Lapham, M. H. (1949). *Crisscross trails: Narrative of a soil surveyor*. Berkeley, Calif. Retrieved from:

<https://catalog.hathitrust.org/Record/005972483>

Pellack, L. J. (2009). Soil Surveys -- They're Not Just for Farmers. *Issues in Science and Technology Librarianship*, no. 58. Retrieved from: <https://doi.org/10.5062/F4K935FH>

Soil Science Division Staff. (2017). *Soil survey manual*. C. Ditzler, K. Scheffe, and H.C. Monger (eds.). 4th ed. Agriculture Handbook 18. Government Printing Office, Washington, D.C. Retrieved May 26, 2020, from

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=nrcs142p2_054262

Soil surveys by state. (n.d.). Natural Resources Conservation Service, United States Department of Agriculture. Retrieved May 20, 2020, from <https://www.nrcs.usda.gov/wps/portal/nrcs/soilsurvey/soils/survey/state/>

Web soil survey. (n.d.). Natural Resources Conservation Service, United States Department of Agriculture. Retrieved May 20, 2020, from <https://websoilsurvey.nrcs.usda.gov/app/>

Where are the maps? (n.d.) Natural Resources Conservation Service, United States Department of Agriculture. Retrieved May 20, 2020, from <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/state/?cid=stelprdb1262190>

Timeline

- Created using Timeline JS
 - <https://timeline.knightlab.com/>
- All text derived from the inventory
- Added links to digitized surveys
- Chose representative screenshots



USDA, Natural Resources Conservation Service
From Bear River Area Soil Survey (1905).

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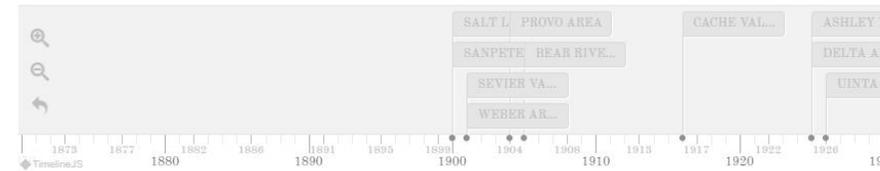


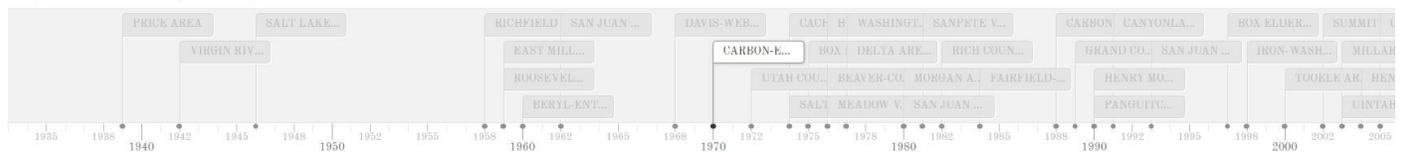
Figure 11.—An area of Gullied land, called Major Wash, south of Huntington. The white spots are accumulations of salt.

USDA, Natural Resources Conservation Service

1970 CARBON-EMERY AREA

The Carbon-Emery area Soil Survey was published in 1970. The survey location is parts of Carbon, Emery, Grand, and Sevier Counties. The print survey can be found in the Government Documents Collection under call number A 57.38:C 17. View the soil survey online at www.nrcs.usda.gov/Internet/FSE...

Digitized cover of the Carbon-Emery area Soil Survey.



Interactive Map

- Created using Google My Maps

- <https://www.google.com/maps/d/>

- All text derived from the inventory

- Added links to digitized surveys

